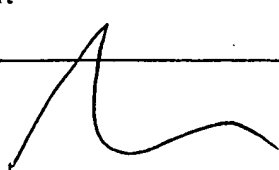


**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference FP20533	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. PCT/AU2004/001683	International filing date ( <i>day/month/year</i> ) 1 December 2004	Priority date ( <i>day/month/year</i> ) 1 December 2003
International Patent Classification (IPC) or national classification and IPC Int. Cl. <sup>7</sup> B25J 9/00, 9/06, 9/08.		
Applicant UNISEARCH LIMITED et al		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
  - a. ☒ (sent to the applicant and to the International Bureau) a total of 1 sheets, as follows:
    - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or table related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand 3 June 2005	Date of completion of the report 14 November 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  <b>R. WEBER</b> Telephone No. (02) 6283 2546

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1 (b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1 to 31 as originally filed/furnished
- pages\* received by this Authority on with the letter of
- pages\* received by this Authority on with the letter of
- ☒ the claims:
- pages 32 to 36, 37, 38 as originally filed/furnished
- pages\* as amended (together with any statement) under Article 19
- pages\* 36 received by this Authority on 14 October 2005 with the letter of 14 October 2005.
- pages\* received by this Authority on with the letter of
- ☒ the drawings:
- pages 1 to 13 as originally filed/furnished
- pages\* received by this Authority on with the letter of
- pages\* received by this Authority on with the letter of
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to the sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to the sequence listing (*specify*):

\* If item 4 applies, some or all of those sheets may be marked "superseded."

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

**1. Statement**

Novelty (N)	Claims <b>1 to 43.</b>	<b>YES</b>
	Claims	<b>NO</b>
Inventive step (IS)	Claims <b>1 to 43.</b>	<b>YES</b>
	Claims	<b>NO</b>
Industrial applicability (IA)	Claims <b>1 to 43.</b>	<b>YES</b>
	Claims	<b>NO</b>

**2. Citations and explanations (Rule 70.7)**

Novelty (N) and Inventive Step (IS) Claims 1 to 43.

The invention as presently defined is directed to a method of controlling a system formed from interdependent units and not a centralised control structure where each unit establishes a desired action for each unit responsive to the outcome but independently of the desired action of the other units:

No individual citation or obvious combination of citations discloses these features.

The closest art maybe seen in the following documents:

EP 110347 B, US 20030010603 A, WO 19881005712 A, US 5523662 A, EP 1287869 A and  
WO 19991001261 A.

Industrial Applicability (IA) Claims 1 to 43.

All claims would appear to be industrially applicable.

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26. A system for controlling a plurality of  
interdependent units moveable to achieve an outcome,  
the system comprising a controller arranged to  
5 implement a control methodology in accordance with  
any one of Claims 1 to 23.
27. A system in accordance with Claim 24, wherein the  
information regarding the presence of constraining  
10 factors is collected by a sensor.
28. A system in accordance with Claim 25, wherein the  
movement is performed by an actuating means.
- 15 29. A system in accordance with any one of Claims 24 to  
26, wherein each interdependent unit is a constituent  
part of a robot.
30. A system in accordance with Claim 27, wherein each  
20 constituent part is a module in a robotic  
manipulator.
31. A system in accordance with any one of Claims 24 to  
28, further comprising control means capable of  
25 switching the control methodology of the system to a  
centralised control methodology.
32. A computer program arranged to, when loaded on a  
computing system, perform the method of Claim 1.  
30
33. A computer readable medium incorporating a computer  
program in accordance with Claim 32.